



ARTISTS USING SCIENCE & TECHNOLOGY

"Ylem" is the primordial Stuff out of which
the universe emerged

SEPTEMBER 1983
VOL. 3 ISSUE 3

THE LIGHT FANTASTIC

A HOLOGRAPHIC SEMINAR
in collaboration with L.A.S.E.R.

OCT 1st 2-5:30 pm

Laser Light: Steve Anderson, Nancy Gorglione, Louis Brill, Gino Negrone
Holography: Bruce Goldberg, Gary Zellerbach, Randy James



© Floyd Rolleston

FREE AND
OPEN TO ALL

CALENDAR

- September 17 & 18 SCIENCE AND ART SHOW BY POST/SCIENCE will be held at the YMCA, 720 Golden Gate Ave., San Francisco. Ylem member Trudy Myrrh Reagan will have several pieces on display. On Saturday the show is open from 11am to 8pm; on Sunday from 11am to 5 pm. Cost \$5.50. For more info call 648-8041.
- September 29 7:30 pm MULTI-MEDIA PRODUCTIONS AND VIDEOGRAPHICS: A LOOK AT THE STATE OF THE ART will feature Jamie Beardsley speaking on multi-image slide show production and Lisa Zimmerman speaking on video art, graphics, and animation. Sponsored by Artists In Print. Location: Conference Center Building A, Fort Mason Center San Francisco. Admission: \$6.
- ★ October 1 2 pm LASERS - AN ARTISTIC APPROACH TO THE LIGHT FANTASTIC is the topic of the next Ylem meeting. Members of L.A.S.E.R. are cosponsoring the event. Speakers on the topics of lasers and holography include Louis Brill, Steve Anderson, Nancy Gorgione, Bruce Goldberg, Gary Seltzerbach, and Randy James. The meeting will be held at the California College of Arts and Crafts, Broadway at College, in Oakland.
- October 3-4 COMPUTER ANIMATION '83 THE REAL WORLD is a workshop sponsored by Pratt Center for Computer Graphics in Design. All speakers are active in computer animation. Workshop site is RMS Queen Mary in Long Beach, CA. For info write: Pratt Center, P.O. Box 464, Elmsford, NY 10523 or call (914)631-8772.
- October 6-9 WORLD PRINTS '83: A CONFERENCE ON INTERNATIONAL PRINTMAKING features speakers, exhibitors, lectures, and workshops. Speakers at the conference include: Christoph Brockhaus from Germany, Kathan Brown, Patricia Gilmour from Australia, Riva Castleman from New York Museum of Modern Art, Richard Hamilton, Akira Kurosaki, Giuseppe Zigaina, and James Rosenquist. Cost is \$75 for nonmembers, \$60 for council members and students, and \$65 for members of San Francisco Museum of Modern Art. Mail check to World Print Council, P.O. Box 26010, San Francisco, CA 94126. For more info call 776-9200.
- October 14-16 THIRD ANNUAL SYMPOSIUM ON SMALL COMPUTERS IN THE ARTS features exhibits, film/video shows, videobar reception, prints and photo gallery, and a computer music concert. For more information write Symposium, Box 1954, Philadelphia, PA 19105. Electronic information available on SOURCE TCH 163 or COMPUSERVE 73125,165.
- October 24-25 SECOND ANNUAL PACIFIC NORTHWEST COMPUTER GRAPHICS CONFERENCE will explore the theme "Applications on the Leading Edge." For more info: PNW Computer Conference, 111 Susan Campbell Hall, University of Oregon, Eugene, OR 97403; (503)686-5555.
- ★ October 30 2pm YLEM BUSINESS & SOCIAL MEETING hosted by Jerome Kirk in Oakland. Location: 874 41st St. near MacArthur BART. Call 654-3120 for more information. Bring art and ideas to share!
- ★ November 6 2pm YLEM BUSINESS & SOCIAL MEETING hosted by Trudy Myrrh Reagan. Location: 967 Moreno, Palo Alto. Catch 85 bus from Stanford Shopping Center or Palo Alto train station. A studio visit to sculptor Dave Dameron will be included. Bring art and ideas to share!

OPPORTUNITIES

- Now INTRO TO COMPUTER GRAPHICS I & II: ten week courses on ViaVideo System II(4,096 colors), small class, hands on, instructor Luz Bueno. Offered by Berkeley School of Computer Graphics through Cal. College of Arts and Crafts Ext. \$290(noncredit) or \$400(two units credit), plus \$70 materials fee. Class I starts Oct. 4, 5 to 10pm; class II starts Oct. 8, 1 to 5 pm. Info: 524-1668.
- Now ARTRAIN needs artists(especially art/science and high tech) to exhibit their work when the train stops in Palo Alto October 10-19. For more info call Artrain at 329-2122.
- Now COMPUTER ART NEEDED. Merlins. The Illuminarium in Mill Valley seeks slides that they can use to show and sell your work to corporations through their corporate division. Acrylics, serigraphs, lithos, etc. are acceptable. Send dimensions, media price list, resume, and SASE to Lina Metzel, c/o Merlins Collection, P.O. Box 15901, Fairfax, CA 94930; 485-0883.
- Deadline September 15 COMPUTER GRAPHICS GRAND PRIX seeks entrants. All images must be produced by computer and must be premiere for Japan. Submit film(35mm, 16mm, or 8mm) or videotape(1/4", 1/2", VHS or Beta) and a description of work in less than 1,000 words. Grand prize \$2,000,000. Mail to Nihon Keizai Shimbun Inc, Advertising Department, Nikkei Bldg. 9-5, Ohtemachi 1-chome, Chiyodaku, Tokyo 100. For technical inquiries call Nikkei-McGraw Hill Inc. at 233-8161.
- Proposal Deadline September 16 PROPOSALS sought for art work to be placed on one of two sites outside the new Senior Citizens Center. Project budget is \$3,500. For additional info write City of Davis, Parks and Community Services, Attn: Bob Bowen, 23 Russell Blvd., Davis, CA 95616
- Slide Deadline October 4 ELECTROSTATICS INTERNATIONAL needs slides for competition. Media: electrostatics, copy art, xerography. Fee \$5 for 5 slides, limit 5 slides. For info: A. Aitken, Image Resource Center, One Playhouse Square #106, 1375 Euclid Ave., Cleveland, OH 44115; (216)621-1844.
- Deadline October 7 Hand delivery VISIONARY ART SHOW needs paintings and graphics of metaphysical, spiritual, fantasy and futuristic art only. \$5 entry fee, limit 5 works. \$250 awards. For info: Visionary Art Show, P.O. Box 999, San Jose, CA 95108; (408)292-6716.
- Continuing LAICA AFTER HOURS VIDEO NIGHT accepting new videos on all subjects for evening shows held on first Thursday of every month. Submit all material and SASE to Stacy Naviland, 2020 South Robertson Blvd., Los Angeles, CA 90034.
- Continuing SPEAKERS NEEDED to talk about careers in computer graphics. Call Ylem member Mark Briggs at (408)258-6792.

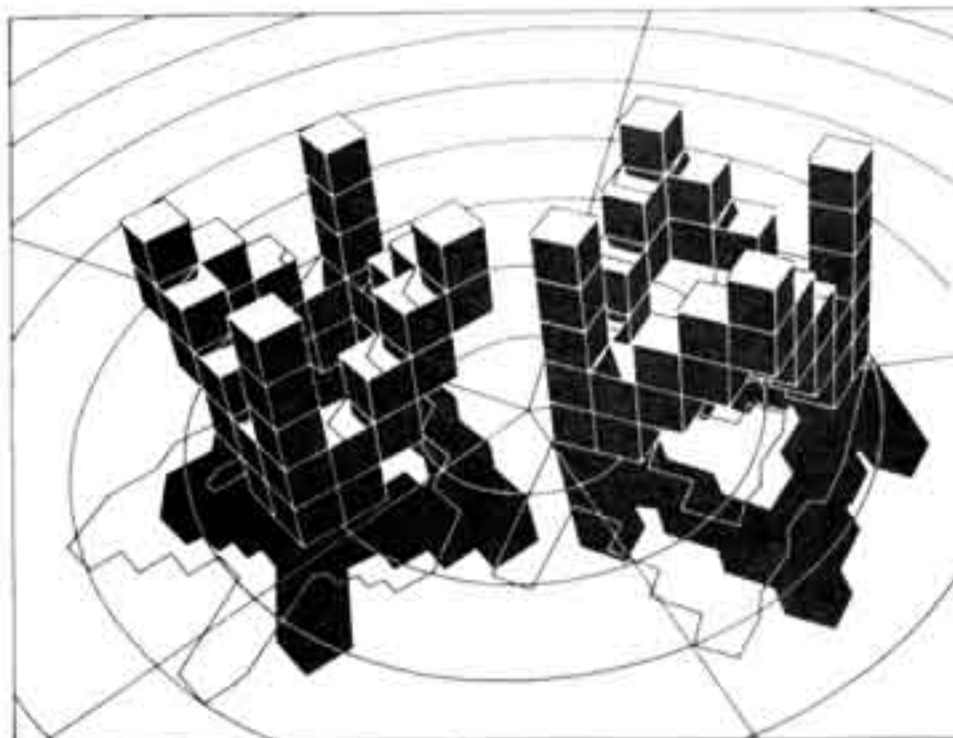
All telephone numbers are in area code 415 unless otherwise indicated.

RESOURCE LIST

HOLOGRAPHY

A number of books are available for those wishing to study holography in more detail. While differing in emphasis, all are written with the average(non-scientist) reader in mind. Thus, with no previous technical training, you can learn all you need to set up your own lab and make holograms at home. All books described in this section are available from the Holos Gallery in San Francisco. For information about ordering books call (415)668-4656.

Holography Handbook, Unterseher, Hansen, and Schlesinger (Paperback, 408 pages, 1982) \$16.95 - This is the newest "how to do it" book on the market. Written by established Bay Area holographers and teachers, the authors have combined their years of experience to create a fine handbook. Intended for the layman, this book features a comprehensive set of diagrams and step by step instructions for everything from building the exposure table through making various types of holograms. Charts are also included on where to buy lasers and the related equipment. As a special bonus, a white light viewable hologram is included in every copy.



Color Matrix, Edward Sellery © 1983
acrylic on canvas, 2'x 3'

A Guide to Practical Holography, Outwater and Van Hamersveld (Paperback, 89 pages, 1974) \$12 - This is one of the original "how to do it" books on holography and still one of the best. It begins with solid introduction into the theories of light and lasers and follows this up with all the practical knowledge needed to set up a lab and make your own holograms. This excellent book is both accurate and concise.

The Holography Book, Berner (Paperback, 126 pages, 1980) \$5.95 - This is a concise pocket size book by noted California photography writer Jeff Berner. He presents a complete overview of holography: history, fine art uses, a how to do it section, and a comprehensive listing of resources related to holography. In addition this book contains statements gathered from 24 of the world's leading holographers about their art and science. The book contains four pages of color photos and 30 black and white photos.

Edward Sellery

Sellery builds abstract looking structures and uses them as still lifes for his paintings. In his fool-the-eye paintings the structures are covered with spectral grids, looking very much like imaginary computer modeled worlds.

"I am drawn to geometry/space and the spectrum/radiance. These are inherent aspects of the color matrix which in order to dramatize or intensify I manipulate pattern and interval, that is to say both the two dimensional and three dimensional space,"commented Sellery.

His work was featured in a four-color spread in Popular Computing magazine in April 1982 as "inspired by computers." However, his hard edge paintings are painstakingly hand done.

InCider magazine will feature Sellery's work in their November issue.

Understanding Holography, Wenyon (Hardbound, 176 pages, 1980) \$13.95 - Designed for the general reader, this book describes the art of holography in an entertaining yet precise manner. After an introduction to the basic properties of light and the workings of the laser, the process of holography is explained in a clear fashion. Further discussion concerns the different types of holograms, their properties, and their uses. The final part of the book describes how to set up a holographic laboratory. This book contains many diagrams and black and white pictures, as well as a good bibliography for those wishing to continue their research in holography.

Additional holography resources:

Holografix - Peter Miller, director - Located in Emeryville, Holografix provides a classroom environment for learning holography from a basic to an advanced level. Phone (415)658-3200 for more information.

Holos Gallery - Gary Zellerbach, director - This is northern California's first and only gallery dedicated to the art of holography. The gallery offers an ongoing schedule of rotating exhibits featuring fine art holograms by America's top holographers. 1792 Haight Street, San Francisco, (415)668-4656.

PHYSICS

Since lasers and holography depend on physics, here are a couple of books to help you understand such phenomena as interference patterns.

Knowledge and Wonder, Nobel prize winner Victor Weisskopf, (MIT Press, paperback) \$5 - Anyone interested in science who would like a pleasant but factual overview should get this book. He doesn't have to lean on controversial experiments verging on mysticism to jazz it up, but shows how the interlocking disciplines of physics, chemistry, geology, and biology are exciting in themselves. The emphasis is on physics, his specialty, and he has a knack of making it accessible, even tangible.

For example: "The smallest distance we can distinguish is about one tenth of a millimeter. It is the width of a hair. The next step on our ladder is a distance characteristic of our own size - the distance from our eye to the tip of our arm; ten thousand times larger than the first one it is about one meter. The distance to the mountains plainly visible at the horizon is again ten thousand times more, 10 kilometers. The distance earth-sun is again about ten thousand times larger; it is 150 million kilometers... (and so on to the galaxies). In most cases the increase was by a factor of ten thousand. Such a step is easily within our ability to visualize by remembering that the length of our arm is about

ten thousand times the width of a hair, or the distance is related by the same factor to our own body."

On the nature of the atom: "Atomic phenomena present us with a much richer reality than we are accustomed to meeting in macroscopic physics. The wavelike properties of quantum states, the indivisibility of these states, the fact that we cannot describe the atom completely in terms of familiar things such as particles or classical waves, are features that do not occur with objects in our macroscopic experience." On the quantum jump: "A connection was found between the wave nature of the electron and the existence of discrete states in the atom. Here we are touching the very nerve of nature. When an electron is confined to a limited region around the nucleus, the wave properties of the electron permit only certain special, predetermined states of motion. Therefore, the atom cannot change its state continuously; it must change abruptly from one allowed state to the other." -Trudy Myrrh Reagan

Subtle is Lord, Abraham Pais - a new biography of Einstein. There's quite a bit of physics in it, so the novices may need some help, but it is by far the best biography of Einstein yet published according to a friend of Trudy's.

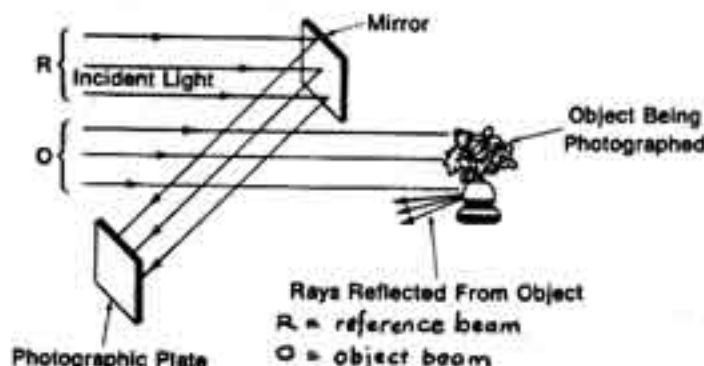


FIGURE 7-2 The essentials of modern holography, greatly simplified. The opaque object—vase and flowers—reflects light diffusely to the photographic plate.—Dr. E. N. LEITH AND JURIS UPATNEIKS, UNIVERSITY OF MICHIGAN, & HOLOGRAPHY, H. Arthur Klein

October meeting coordinator Louis Brill

Ylem member Louis Brill has been working with holography for over 12 years and is now involved with developing educational seminars in regard to the artistic and interior design applications of holography. He also develops simulated holographic projection techniques for theatrical and dance presentations.

Louis arranged and coordinated the October Ylem seminar. For details see the calendar on page two.

ABOUT OUR COVER

The cover art for this issue was done by Floyd Rollefstad of Coherent Images, Inc. He is the producer of innumerable laser lightshows throughout the United States and abroad. His laser performances are presented with a multi-colored Krypton-Argon laser of his own design.

"An audience for abstract entertainment exists, and it hasn't had that need satisfied very often," Rollefstad said, "and our shows do just that."

As proof of this point, Coherent Image laser shows generally conclude with audiences clapping and cheering for more

YLEM NOTES

By Trudy Myrrh Reagan

Let's be frank. When organizing Ylem activities like the newsletter, bimonthly forum, and exhibits the first people contacted are the ones whose work springs to mind. If we haven't seen your work, you are much less likely to be contacted. Be an exhibitionist!

ways you can be seen include:

1. Submit art to the newsletter or Yellow Pages. Please include an artistic statement with your art.
2. Bring art to share to meetings whether it is relevant to the subject or not. There is always room for an informal display.
3. Submit slides or photos for the Ylem gallery presentations notebook.
4. Consider the subjects which interest you and pertain to your work. Would they make good meeting titles? Could you speak about your work in that context? Are there other resources that you know of to fill out a program? Please offer suggestions.
5. Suggest your studio for a gathering.
6. Groups of artists within Ylem whose work is related should seek each other out, put together a proposal for an Ylem organized show, and find a gallery.

Yellow Pages deadline extended

Ylem Yellow Pages is making slow but steady progress. If you haven't completed the resource questionnaire or submitted your artwork, please do so now.

Contact Louis Brill at (415)664-0694 if you need additional information or a new form.

MEMBERS IN THE NEWS

Carrie Adell.....In August Carrie had a show of her jewelry based on science imagery at Contemporary Artisans in San Francisco. Carrie also had a booth at the prestigious American Crafts Council Crafts Fair at Fort Mason.

David Thornburg.....David is working on another book that will be for the IBM Personal Computer. His most recently released book is Discovering Apple Logo - An Invitation to the Art and Pattern of Nature (Addison Wesley Micro Books, \$14.95).

Carl Rosendahl.....Pacific Data Image, founded by Carl, recently sold three spots done on their system to a Brazilian television network.

Eddie Oshins.....A recent compendium of five papers by Yuri Orlov called Wave Logic of Consciousness has an introduction written by Eddie. On July 5 Eddie spoke on the "The Physics of Tao" at an Eric Berne Seminar. Eddie also caught the attention of the San Francisco Chronicle editors. He was quoted in a July 30 editorial about releasing Yuri Orlov from Russian prison.

Eleanor Kent.....Eleanor has a terrific slide show of computer art from SIGGRAPH that she wants to show to groups for a fee. Call her at (415)647-8503 for details.

Stephen Wilson.....Stephen had an article in the winter 1983 issue of Leonardo magazine called "Computer Art - Artificial Intelligence and the Arts."

Lucia Grossberger, Harry Vertelney, Ho Pearlmutter, and Trudy Reagan.....Art Com magazine (#21, Vol. 6) featured these Ylem members in their computer fashions issue.

Don Lloyd.....Today magazine interviewed Don for an article about musical composition with computers for their September 1983 issue.

Alex Nicoloff.....A solar sculpture titled "Spectralwave" by Alex has been on view at the Kroeber Foundation at UC Berkeley. The piece consists of a row of prisms tilted so as to project all year round an expanded spectrum on the curved planes below. Alex's interest in prisms and the solar spectrum also includes kinetic constructions for interiors on an architectural scale.

CAMERA OSCURA, behind the Cliff House in San Francisco, offers free admission to all Ylem members.

Corrections

Jon Alexandr(that's right)
1724 Sacramento
San Francisco, CA 94109
design, space, evolution

Kali Grosberg
532 Lombard
San Francisco, CA 94133
956-1568

Eclectic Electric
(Grossberger & Vertelney)
949-3116

Mark Briggs
zip code: 95127
(408)258-6792

New members

John D. Greenhill
2264 #4 Lucrecia Ave.
San Jose, CA 95122
(408)279-0435
calligraphy

Betty Estersohn
66 Encina Ave.
Atherton, CA 94025
368-2281
video, painting

Emily DuBois
371 60th St.
Oakland, CA 94618
658-7629
fiber art, computer assisted

Murry C. Christensen
6450 Fleetwood Dr.
Nashville, TN 37219
new physics, computer
graphics, synthesized sound

Sharyn Lyn McDonald
442 Lakeview Way
Redwood City, CA 94062
365-2669

MAILING LIST UPDATE

Dear Ylem:

I am writing as co-coordinator for the California Theatre Council's conference on "The Future of California Theatre" at the Fort Mason Center in San Francisco, Nov. 11-13, 1983. The CTC is a membership organization representing the entire range of California non-profit theatres..

We would be thrilled to make connection with your membership about the conference. Many discussions, demonstrations and performances at the conference might be of interest to your group, especially demonstrations by theatre artists using the new technologies (Chris Hardman of Antenna Theatre, Nightfire, Nightletter, brainwave musician Bob Beede and others). Is there a way we might get information to your membership (newsletter, places to send our brochures, suggestions of Silicon Valley media sources)?

I would like very much to talk with you about Ylem and where our interests overlap. Please write or call at your convenience c/o Bay Area Theatre Alliance, 2940 16th Street, Suite 102, San Francisco, CA 94103; (415)621-2654 (MWF).

I look forward to hearing from you.

Cordially,
Deborah Allen
Conference Co-Coordinator

One more resource

A good catalog is available from Creative Publications. For more information write or call: Creative Publications, 3977 East Bayshore Road, P.O. Box 10328, Palo Alto, CA 94303, (415)968-3977.

Ylem Board of Directors: President - Trudy Myrrh Reagan; Corresponding Secretaries - Robin Samelson, Lois Johnson, Francine Pfeifer; Membership - Dolores Heggie; Meeting Programs - Deanne Delbridge; Newsletter Editor - Luanne Hicks; Treasurer - Tom Pressburger; Telephone Tree - Bob Ishi, Louis Brill, Judy Spencer, Carrie Adell, Mailing List - David Thornburg; Field Trips - Shoshannah Dubiner; 'Yellow Pages' - Louis Brill.

Name _____
Address _____
City _____ Zip _____
Phone () _____

I would like:
☐ to receive a sample issue.
☐ a year's membership. \$10 is enclosed.
☐ newsletter only, since I live more than 100 miles from both San Francisco and Palo Alto. \$5 enclosed.

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